

REMARKS

On August 13, 2007, an Official Action was sent out which dealt only with claims 1-3 and objected to claims 4-13 on the ground that they were multiply dependent. In fact, however, the preliminary amendment was filed with the application correcting the multiple dependency.

An action on the merits of all the claims was requested, and the setting of a new period for response, in a paper filed on August 20, 2007.

A first action on the merits of all the claims was provided in an Official Action dated February 1, 2008. But that action has been made "final". The action should not have been made "final", because claims 4-13 were never acted on as to merit and the rejection of claims 1-3 was never responded to, that August 13, 2007 action being incomplete. Thus, the Official Action of February 1, 2008 should only have been a corrective action, completing the Official Action of August 13, 2007, and setting a three month period for response, non-final.

Accordingly, the withdrawal of the finality of the Official Action of February 1, 2008 was respectfully requested, in the paper filed February 7, 2008. No response has been received and the request is hereby repeated. The Examiner has been telephonically contacted on this matter by voice message on April 30, 2008.

The application has been amended and is believed to be in condition for allowance.

Claims 1 and 13 are amended to include a feature disclosed at page 5, lines 7-10 and page 7, lines 19-22. No new matter is entered by way of this amendment.

Claims 1-13 were rejected under section 112, second paragraph as indefinite. Claim 1 has been amended responsive to the rejection.

Claim 2 has not been amended as the recitation is definite. Claim 2 recites that the adjustable-flow cocks (2) pass through the tubes (1), said cocks terminating in said nozzles (3). See specification page 2, beginning at line 21 with reference to Figure 3. Therein it is disclosed that "Cocks 2 pass through said tubes 1 from place to place depending on the thermal zone to be monitored. Nozzles 3 or injectors, directed towards the wall to be cooled 7, are installed at the end of these cocks. Operation of these cocks is electrical and progressive, with micrometric adjustment and computer-controlled automatic operation. These cocks can be dismantled while the tube is under load, for maintenance without production stoppages." Figure 3 illustrates that the adjustable-flow cocks (2) pass through the tubes (1) and terminate in said nozzles (3).

Withdrawal of the indefiniteness rejection is solicited.

Claims 1-8 and 10-13 were rejected as anticipated by ARTHUR 5,115,184.

Claim 9 was rejected in further view of GUYER 6,053,418.

The rejections are respectfully traversed.

ARTHUR discloses a system for cooling an inner wall of a thermal system by spraying cooling water ("coolant", col. 3, lines 64-66) in the inner wall of the thermal system. The system disclosed in ARTHUR also comprises means ("vacuum means or pump means", col. 7, lines 12 and 28) "to insure quick removal of the spent coolant from the inner cover" (col. 7, lines 25-27) to maintain "relatively low pressure" (col. 7, lines 34-35) to "minimize the risk of coolant leakage into the" thermal system (col. 7 lines 35-36). Besides, in ARTHUR the "coolant should be drained as quickly as possible so that there is a minimum of standing coolant over the lower wall to minimize interference with the spray of coolant directly against the wall" (col. 7, lines 2-5). GUYER discloses a self-powered heating system.

ARTHUR taken alone or in view of GUYER does not disclose "maintaining the water-spraying zone delimited by said respective inner and outer walls under negative pressure for an evaporation of the cooling water at low temperature", as indicated in amended claims 1 and 13.

Indeed:

As explained in col. 4, lines 3-13 in ARTHUR, the water used as coolant "is removed in liquid form" and the coolant fluid is not evaporated unless the water reaches 212°F". 212°F corresponds to 100°C, which is the normal temperature for water evaporation

and not a low temperature as disclosed in the present application (see page 7, line 21).

The existence of vacuum or pump means does not necessarily mean that there is a negative pressure. Indeed, in ARTHUR, vacuum and pump means are used "to insure quick removal of the spent coolant from the inner cover" (col. 7, lines 25-27)" and to avoid any "dangerous situation with the possibility of explosion" (col. 4, lines 21-24) due to a higher temperature of the coolant.

In the present invention a negative pressure permits new functions and new results that are:

An instantaneous evaporation of the cooling water at low temperature to limit the thermal shocks (page 5, lines 8-10),

a better control of the temperature by the absorption of the latent heat (page 5, lines 11-13), and

the reduction of the calefaction effect when the water is sprayed on the inner wall.

It is believed that amended claims 1 and 13 clearly bring out these distinctions with ample particularity, and so define the invention over the combination of references that was applied against them.

The claims that depend from claim 1 are patentable because of this dependency, and also by virtue of the further features of novelty that they separately recite.

Conclusion

In summary, the presently presented claims are believed to be both novel and non-obvious over the prior art in general and over the applied references in particular. Therefore, reconsideration and allowance of all the claims are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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